

Animal Disease Traceability

General Standards

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UNITED STATES DEPARTMENT OF
AGRICULTURE

Animal Disease Traceability

General Standards

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Preface

The USDA Animal and Plant Health Inspection Service (APHIS) is proposing to establish traceability regulations for livestock moving interstate. The purpose of the regulations is to improve the ability of APHIS to trace livestock when disease is found.

The proposed rule, “Traceability for Livestock Moving Interstate,” references this Animal Disease Traceability General Standards document. This general standards document provides details on numbering systems and official identification devices that would be authorized under the proposed rule. Additional information, including listing of official identification devices, is provided at <http://www.aphis.usda.gov/traceability/>.

Section A: Data Standards

Official Identification Numbers - Animals

Official identification numbering systems are fundamental to animal disease programs. Numbers for both individual animals and groups of animals are defined to support methods of official identification for the various species and for meeting production management practices. Official animal identification devices, such as eartags, will have an official identification number imprinted on them. Group/lot numbers are associated to the animals through records maintained by individuals responsible for the group throughout the production chain.

Official identification numbers are nationally unique numbers permanently associated with individual animals or groups of animals. Official identification numbers are associated with individual animals or groups of animals through official identification devices or methods. Official identification numbers adhere to one of the following numbering systems:

- National Uniform Eartagging System (NUES)
- Animal identification number (AIN)
- Location-based number system
- Flock-based number system
- Any other numbering system approved by the Administrator for the official identification of animals.

Individual Animal Numbers

Official animal numbering systems provide a way to uniquely identify individual animals. Official identification for certain species is based on identification devices (e.g., official eartags) that have an official animal number imprinted on them. Official identification devices that adhere to these numbering standards are listed in Section B of this report. The following table specifies the format for each official numbering system used for individual animals.

Table 1. Individual Animal Identification Numbers				
Data Element	Length	Format	Example	Comments
National Uniform Eartagging System (NUES)	9 or 8	Alphanumeric	23 ELV 4574 PA ELV 4574 23 DX 1234 PA DX 1234	
	[2]		23 PA	Default is State or Tribe numeric code. State postal abbreviation is optional.
	[3] or [2]		ELV AB	See official tag specification in Section C, Table 5 for details on the use of the letters in these positions.
	[4]		4574	4 digits in a chronological numerical sequence.
Animal ID number (AIN)	15	Numeric	84003456789012	
	[3]		840	The first 3 digits are the country code (840 = USA). See footnote below regarding USA and manufacturer codes.
	[12]		003456789012	The last 12 digits are the animal number. Start number > 3,000,000,000.
Flock-based number with a herd management number	15 Max.	Alphanumeric	MN0456 4275	
	[9] Max.		MN0456	See flock standard below.
	[6] Max.		4275	Unique herd management number.
Location-based number with a herd management number	14 Max.	Alphanumeric	IA123456 123456	
	[8] Max.		IA123456	See LID and PIN standard below.
	[6] Max.		123456	Unique herd management number.
<p>AINs with the alpha characters USA or the numeric code assigned to the manufacturer's ISO 11784/85-compliant identification device by the International Committee on Animal Recording may be used as alternatives to the 840 prefix until 1 year after the effective date of the final rule, APHIS Docket-2009-0091, "Traceability of Livestock Moving Interstate."</p> <p>AINs beginning with the 840 prefix are recognized for use only on animals born in the United States.</p>				

Animal Group Identification Numbers

Group/Lot Identification Numbers (GINs)

The use of GINs provides a way to uniquely identify a unit of animals of the same species that is managed as one group throughout the preharvest production chain. The GIN consists of the following:

- One of the location identifiers (premises identification number (PIN) or location identification number (LID)) defined in the following pages
- A six-digit representation of the date on which the group or lot of animals was assembled (MM/DD/YY)
- Two additional digits, ranging from 01 to 99, for the numbering of different groups or lots of animals assembled on the same premises on the same day. When more than one group of animals is assembled, the groups would be designated consecutively as 01, 02, 03, etc.

Flock Identification Numbers

The National Scrapie Eradication Program furnishes eartags to sheep and goat producers. The numbering system for these tags combines a nationally unique flock identification number (FIN) with the producer's unique livestock production numbering system. This flock-based numbering system represents an animal group that is associated with one or more locations. The system serves the sheep and goat industries well in their disease control and eradication efforts.

A State or Federal animal health authority assigns the FIN to a group of animals managed as a unit on one or more premises under the same ownership.

The following table specifies the official group/lot animal identification numbers.

Table 2. Animal Group Identification Numbers				
Data Element	Length	Format	Example	Comments
Group/Lot ID Number (GIN) - Using a PIN	15	Alphanumeric	004T56711221105	
	[7]		004T567	The first 7 characters are the PIN.
	[6]		112211	The next 6 characters are the date the lot was established: MMDDYY.
	[2]		05	The last 2 characters are the number (count 01-99) of the group assembled at a premises on the same day. (01 is the default when one group is assembled.)
Group/Lot ID Number (GIN) ¹ - Using a LID	14 or 16	Alphanumeric	WA123411221105 MN12347811221105	
	[6] or [8]		WA1234 MN123478	The first 6 or 8 characters are the location ID number.
	[6]		112211	The next 6 characters are the date the lot was established: MMDDYY.
	[2]		05	The last 2 characters are the number (count 01-99) of the group assembled at a premises on the same day. (01 is the default when one group is assembled.)
Flock Identification Number (FIN)	9 Max	Alphanumeric		
	[2]		PA	State postal abbreviation required as the first two characters.
	Max of [7]		723456A	FINs exclude the letters I, O, or Q from the characters following the State abbreviation.
¹ LIDs may also use the 7-character format. The check digit must be used as prescribed for PINs.				

Location Numbering Systems

States and Tribes may elect to use location identifiers to support their animal disease traceability plan. Two processes, explained below, support the administration of location identifiers that adhere to the standards defined in Table 3. PINs are available through the PIN allocator, a software application tool that APHIS provides to States and Tribes electing to use it. States may also use their own process for administering unique State-issued location identifiers. To avoid confusion in presenting these options in this document, State-issued location identifiers are referred to as LIDs, and the numbers States and Tribes obtain through the allocator are referred

to as PINs (or standardized PINs). States and Tribes may choose to use other terms in their materials.

States and Tribes are not required to provide PINs or LIDs for the administration of their traceability plans. However, if they choose to use location identifiers to administer their traceability activities, following the standards below will ensure that their information systems are compatible with other traceability and animal health databases.

Location Identification Numbers

LIDs are administered through a State's or Tribe's internal system. The LID consists of six or eight alphanumeric characters. Seven alphanumeric characters may be used only when the last character is a check digit based on ISO 7064:1983. Using the State postal abbreviation as the first two characters ensures LIDs are nationally unique.

Premises Identification Numbers

States and Tribes may elect to use the PIN in their traceability system. The standardized PIN, obtained through the APHIS PIN allocator, consists of seven alphanumeric characters. The last character is a check digit based on ISO 7064:1983. States may use the State's postal abbreviation as the first two of the seven characters (for example, OH341T4) unless the State is using a 7-character LID. Tribes may also have codes reserved for use with PINs they administer. The codes for Tribes will be assigned upon request. States and Tribes obtaining PINs from the PIN allocator may use either the Standardized Premises Identification System or a Compliant Premises Identification System. The standardized and compliant systems are defined in the Animal Disease Traceability IT technical document.

The LID and PIN data standards are defined in the following table.

Data Element	Length	Format	Example	Comments
LID ¹	6	Alphanumeric	MN4321	First 2 characters are the State postal abbreviation.
	8	Alphanumeric	CA654321	First 2 characters are the State postal abbreviation.
PIN	7	Alphanumeric	A123R69	Last character is a check digit. ²

¹ States and Tribes may issue LIDs in the 7-character format only when the ISO 7064:1983 check digit is used as the last character.

² The check digit calculation algorithm is based on ISO 7064:1983, "Data Processing – Check Character Systems." (See Animal Disease Traceability Technical Standards document.)

Note: To avoid confusion with the numbers 0 and 1, the LID and PIN will not contain the letters O or I except when the letters are contained in the State or Tribal code

Tribal and State Codes

State and Tribal codes used with NUES tags and location identifiers are listed below. Additional codes for Tribes will be established upon request to APHIS.

Table 4: State, Tribe, and Territory Codes

Sort by Name			Sort by Numeric Code		
Alabama	AL	64	Maine	ME	11
Alaska	AK	96	New Hampshire	NH	12
American Samoa	AS	99	Vermont	VT	13
Arizona	AZ	86	Massachusetts	MA	14
Arkansas	AR	71	Rhode Island	RI	15
California	CA	93	Connecticut	CT	16
Colorado	CO	84	New York	NY	21
Commonwealth of the N. Marianas	MP	98	New Jersey	NJ	22
Connecticut	CT	16	Pennsylvania	PA	23
Delaware	DE	50	Ohio	OH	31
Florida	FL	58	Indiana	IN	32
Georgia	GA	57	Illinois	IL	33
Guam	GU	97	Michigan	MI	34
Hawaii	HI	95	Wisconsin	WI	35
Idaho	ID	82	Minnesota	MN	41
Illinois	IL	33	Iowa	IA	42
Indiana	IN	32	Missouri	MO	43
Iowa	IA	42	North Dakota	ND	45
Kansas	KS	48	South Dakota	SD	46
Kentucky	KY	61	Nebraska	NE	47
Louisiana	LA	72	Kansas	KS	48
Maine	ME	11	Delaware	DE	50
Maryland	MD	51	Maryland	MD	51
Massachusetts	MA	14	Virginia	VA	52
Michigan	MI	34	West Virginia	WV	54
Minnesota	MN	41	North Carolina	NC	55
Mississippi	MS	65	South Carolina	SC	56
Missouri	MO	43	Georgia	GA	57
Montana	MT	81	Florida	FL	58
Navajo Nation	NN	77	Virgin Islands (U.S.)	VI	59
Nebraska	NE	47	Kentucky	KY	61
Nevada	NV	88	Tennessee	TN	63
New Hampshire	NH	12	Alabama	AL	64

Sort by Name			Sort by Numeric Code		
New Jersey	NJ	22	Mississippi	MS	65
New Mexico	NM	85	Arkansas	AR	71
New York	NY	21	Louisiana	LA	72
North Carolina	NC	55	Oklahoma	OK	73
North Dakota	ND	45	Texas	TX	74
Ohio	OH	31	Navajo Nation	NN	77
Oklahoma	OK	73	Montana	MT	81
Oregon	OR	92	Idaho	ID	82
Pennsylvania	PA	23	Wyoming	WY	83
Puerto Rico	PR	94	Colorado	CO	84
Rhode Island	RI	15	New Mexico	NM	85
South Carolina	SC	56	Arizona	AZ	86
South Dakota	SD	46	Utah	UT	87
Tennessee	TN	63	Nevada	NV	88
Texas	TX	74	Washington	WA	91
Utah	UT	87	Oregon	OR	92
Vermont	VT	13	California	CA	93
Virgin Islands (U.S.)	VI	59	Puerto Rico	PR	94
Virginia	VA	52	Hawaii	HI	95
Washington	WA	91	Alaska	AK	96
West Virginia	WV	54	Guam	GU	97
Wisconsin	WI	35	Commonwealth of the N. Marianas	MP	98
Wyoming	WY	83	American Samoa	AS	99

Section B: Official Animal Identification Methods and Devices

Official identification methods and devices officially identify an animal or group of animals by applying an official identification number to an animal or associating an official identification number with an animal or group of animals. Tables 1 and 2 in Section A of this report list official animal numbering systems for livestock.

Official identification options are listed in the proposed traceability rule by species.

Official Eartags

Official eartags, approved for certain species, are tags approved by APHIS that provide official identification numbers for individual animals. A summary of the identification devices is provided below, and a listing of official eartags for general use in the animal disease traceability program is provided in the Official Eartag Identification document at <http://www.aphis.usda.gov/traceability/materials.shtml>.

The primary criteria for official eartags include the following:

- Imprinted with an official animal identification number (see Table 1)
- U.S. shield 
- Tamper evident, high retention
- Other characteristics defined through tag specification (defined on tag approval applications)

Distribution of Official Identification Devices

Proper administration of official identification devices is critical to support animal disease traceability. APHIS provides certain official identification devices to producers to apply to their animals. Distribution records of these devices are to be administered as explained below.

National Uniform Eartagging System (NUES)

NUES tags have historically been used by animal health officials in animal disease programs. The animal disease traceability framework allows producers to use NUES tags, commonly referred to as “brite” tags, when authorized by the State or Tribal animal health official. The following provides a basic overview of the key points regarding the distribution of NUES tags to producers:

State, Tribal, and Territory animal health officials and accredited veterinarians¹ may provide NUES identification eartags to producers who wish to use them for official identification and other purposes without administering the eartags through a specific

¹ Producers may be able to obtain NUES eartags directly from State or Tribal animal health officials depending on the policies established at the State or Tribal level.

disease program. This does not apply to eartags that are specific to a disease program, such as brucellosis calfhood vaccination eartags. This enables producers to use the eartags as a tool to qualify their animals for interstate movement. In such cases, the State, Tribe, or Territory animal health officials will maintain complete oversight for the integrity of the information.

One of the duties of State, Tribal, and Territorial animal health officials providing NUES tags is ensuring sufficient contact information is collected about where NUES eartags are distributed to meet the traceability needs of the State, Tribe, or Territory. At a minimum, the record must include:

- The name of the person the tags are issued to.
- The street address, city, State, and ZIP code where the tags are distributed.
- The identification numbers issued.
- The date the tags were issued.
- The name and contact information of the person issuing the tags.

The Animal Identification Management System (AIMS) will be available to States and Tribes for maintaining tag distribution records if they wish to use it.

The use of the AIMS requires the use of either a LID or PIN for each distribution record entered into AIMS. APHIS will, upon request, provide an alternative database that would support the recording of distribution records with the above information only.

Producers considering the use of and availability of NUES tags should contact their State or Tribal animal health official.

Animal Identification Number Devices

AIN devices with the 840 prefix are distributed to producers by AIN device managers and resellers. State and Federal animal health officials may also use AIN devices when they administer animal disease programs. APHIS, through an application and approval process, approves AIN devices that meet established standards. Approved AIN manufacturers are allocated the 840 numbers and are authorized to imprint or encode the AIN only on their approved devices.

AIN device manufacturers distribute AIN devices through AIN device managers, or may act as an AIN manager themselves. All distribution records of 840 AIN tags are reported to the AIMS by the person who has possession of the device when distributing the device to the next individual, whether it is a producer or another reseller. All recipients of AIN devices must first have a LID or PIN as defined in Section A and provide that number to the person that they are obtaining the devices from. The person responsible for the distribution of the AIN devices is responsible for the entry of the distribution record into AIMS. The record includes the AINs, date of distribution, and LID or PIN where the devices were distributed. Details of the processes available for completing these distribution records are provided in the AIMS user manual.

Producers electing to use AIN devices may contact the supplier of the tags in their area. The complete listing of AIN devices and the AIN tag manufacturer's information is at http://www.aphis.usda.gov/traceability/downloads/AIN_device_list.pdf.

Scrapie Program Tags

Administration of official identification requirements for scrapie program tags is explained in the Scrapie Eradication Uniform Methods document at http://www.aphis.usda.gov/animal_health/animal_diseases/scrapie/downloads/umr_scrapie.pdf.

Premises Identification Number (PIN) Tags for Slaughter Swine

PIN tags for slaughter swine provide an option to officially identify sows and boars to the premises where they were kept immediately before entering harvest channels. PIN tags for slaughter swine may be obtained from authorized manufacturers. As with the USDA backtag applied at markets, the PIN tag will be collected as an official form of identification to be associated with any blood or tissue samples collected for disease surveillance. If a PIN tag includes a manufacturer printed number that is unique within a herd, the tag would also qualify as an official eartag for interstate movement of individual animals.